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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,437	11/12/2003	Victor Paul Holbert	IP-023587	7149

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INTERNATIONAL PAPER COMPANY
6285 TRI-RIDGE BOULEVARD
LOVELAND, OH 45140

EXAMINER	
PATTERSON, MARC A	
ART UNIT	PAPER NUMBER
1772	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,437	HOLBERT ET AL.	
	Examiner	Art Unit	
	Marc A. Patterson	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 20-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

NEW REJECTIONS

Claim Rejections - 35 USC § 103

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 3, 6, 9 – 14, 16 and 18 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No. 2001/0007005 A1) and Japanese Patent No. 03191002.

With regard to Claim 1, Kiang discloses a laminate (multilayer structure; column 7, lines 20 – 21) useful in the manufacture of containers for food products (column 7, lines 17 – 18) comprising a paperboard substrate (a coextrusion is applied to paperboard; column 7, lines 7 – 8) and a food contact release layer comprising polymethylpentene (exterior PMP layer exhibits superior food release, therefore a food contact layer; column 7, lines 15 – 19) bonded to one side of the substrate (column 7, lines 20 – 27), the laminate being ovenable (column 7, lines 15 – 19); Kiang discloses that the polymethylpentene comprises a polymethylpentene homopolymer or copolymer (column 6, lines 39 – 42), and that the copolymer is a copolymer of polymethylpentene with propylene (column 6, lines 29 – 35) and is therefore a polypropylene. Kiang fails to disclose a food contact layer comprising a blend of polymethylpentene and polypropylene. However, it would have been obvious for one of ordinary skill in the art to have selected a polymethylpentene homopolymer or copolymer or a blend of a

polymethylpentene homopolymer and copolymer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

The food contact release layer would therefore be a blend of polymethylpentene and polypropylene. Kiang does not disclose that the blend of polymethylpentene and polypropylene exhibits greater softening and melting points than the softening and melting points of polypropylene, but Akki et al disclose that polymethylpentene has a greater melting point than polypropylene (paragraph 0017) and Japanese Patent No. 03191002 discloses that polymethylpentene has a greater softening point than polypropylene (English Abstract – Basic Abstract). The blend of polymethylpentene and polypropylene would therefore exhibit greater softening and melting points than the softening and melting points of polypropylene

With regard to Claims 2, 16 and 20 – 25, Kiang fails to disclose that the food contact layer comprises a blend of about 75%, by weight, of the blend, of polymethylpentene, with the remainder being polypropylene and a softening point and melting point equal to 400 degrees Fahrenheit. However, Kiang teaches that the amount of the components is selected depending on the desired melt flow rate (column 6, lines 39 – 46). Therefore, one of ordinary skill in the art would have recognized the utility of varying the amounts of the blend to obtain the desired melt flow rate. Therefore, the melt flow rate would be readily determined by through routine optimization of the amounts of the blend by one having ordinary skill in the art depending on the desired use of the end product as taught by Kiang.

It therefore would be obvious for one of ordinary skill in the art to vary the amounts, therefore the softening point and melting point, in order to obtain the desired melt flow rate, since the melt flow rate would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kiang.

With regard to Claim 3, 9 – 10 and 18, the food contact release layer comprises polymethylpentene, which has a surface tension of 24 dynes/cm, and polypropylene, which has a surface tension of 29 dynes /cm, and therefore exhibits a surface tension of between 24 and 29 dynes/cm, which is less than 75% of the starch, thus food products are baked when disposed in the container; however, the claimed aspect of the baking of food products in the container is given little patentable weight, as it is directed to an intended use of the claimed invention rather than a structural limitation.

With regard to Claim 6, a tie layer is interposed between the paperboard substrate and the food contact release layer (column 7, lines 20 – 21).

With regard to Claims 11 and 13, Kiang discloses a grease resistant layer, because Kiang discloses ethylene vinyl alcohol as a barrier layer, therefore a barrier to grease (column 7, lines 8 – 12).

With regard to Claim 12, the food contact release layer is extruded onto the paperboard substrate (column 7, lines 7 – 10).

With regard to Claim 14, Kiang discloses that polyamides, therefore nylon 6, are used interchangeably with ethylene vinyl alcohol as a barrier layer, therefore a grease resistant layer with adhesives that are unsuitable for ethylene vinyl alcohol (column 7, lines 2 – 6).

With regard to Claim 19, Kiang discloses that the laminate is formed into food containers (column 7, lines 15 – 18) and therefore discloses that the laminate is formed into a tray.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No. 2001/0007005 A1) and Japanese Patent No. 03191002 and further in view of Lorence (U.S. Patent No. 5,818,016).

Kiang, Akki et al and Japanese Patent No. 03191002 discloses a laminate comprising paperboard, having a food contact layer as discussed above. Kiang, Akki et al and Japanese Patent No. 03191002 fail to disclose a laminate having a basis weight of between 3 and 10 lbs/3000 ft^2

Lorence et al teaches a food contact layer (food contacting surface; column 4, lines 38 – 40) for a paperboard (paper – based substrate; column 3, lines 33 – 35) having a basis weight of between 3 and 10 lbs/3000 ft^2 (between 0.1 and 5/3000 ft^2; column 4, lines 11 – 12) for the purpose of obtaining a food contact layer that can optionally be coated on both sides (column 4, lines 32 – 33). One of ordinary skill in the art would therefore have recognized the advantage of providing for the basis weight of Lorence et al in Kiang, Akki et al and Japanese Patent No. 03191002, which is a paperboard having a food contact layer, depending on the desired coating of the end product.

It would therefore have been obvious for one of ordinary skill in the art to have provided for a basis weight of between 3 and 10 lbs/3000 ft^2 in order to obtain a food contact layer that can optionally be coated on both sides as taught by Lorence et al.

4. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No. 2001/0007005 A1) and Japanese Patent No. 03191002 and further in view of Shanton (U.S. Patent No. 6,066,375).

Kiang, Akki et al and Japanese Patent No. 03191002 disclose a laminate comprising paperboard as discussed above Kiang, Akki et al and Japanese Patent No. 03191002 fail to disclose paperboard having a basis weight between 18 and 320 lbs./3000 ft^2.

Shanton teaches a paperboard laminate (paperboard and coatings; column 2, lines 24 – 61) having a paperboard with a basis weight of between 18 and 320 lbs./3000 ft^2 (100 to 400 lbs/3000 ft^2; column 2, lines 62 – 65) for the purpose of obtaining a laminate preferred for microwave cooking (column 3, lines 40 – 43). One of ordinary skill in the art would therefore have recognized the advantage of providing for the basis weight of Shanton in Kiang, Akki et al and Japanese Patent No. 03191002 depending on the desired microwave use of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a basis weight between 18 and 320 lbs./3000 ft^2 in order to obtain a laminate preferred for microwave cooking as taught by Shanton.

5. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No.

2001/0007005 A1) and Japanese Patent No. 03191002 and further in view of Bissot (U.S. Patent No. 4,818,782).

Kiang, Akki et al and Japanese Patent No. 03191002 disclose a paperboard laminate having a tie layer between a grease resistant layer comprising ethylene vinyl alcohol and a food contact layer, therefore between a paperboard layer and food contact layer, as discussed above. The tie layer comprises a blend of ethylene alkyl acrylate and polypropylene which is modified (column 2, lines 67 – 68; column 3, lines 1 – 2) with a carboxylic acid derivative (column 3, lines 64 – 68). Kiang, Akki et al and Japanese Patent No. 03191002 fails to disclose a tie layer comprising low density polyethylene modified with methacrylic acid.

Bissot teaches that low density polyethylene modified with methacrylic acid is used interchangeably with other modified polyolefins (column 6, lines 35 – 43) as an adhesive between ethylene vinyl alcohol and another layer (column 6, lines 20 – 24) for the purpose of obtaining good adhesion to both layers (column 6, lines 20 –24). One of ordinary skill in the art would therefore have recognized the advantage of providing for the adhesive of Bissot in Kiang, Akki et al and Japanese Patent No. 03191002, which comprises an adhesive between ethylene vinyl alcohol and another polymer, depending on the desired adhesion to both layers of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a tie layer comprising low density polyethylene modified with methacrylic acid in Kiang, Akki et al and Japanese Patent No. 03191002 in order to obtain good adhesion to both layers as taught by Bissot.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No. 2001/0007005 A1) and Japanese Patent No. 03191002 and further in view of Adur (U.S. Patent No. 5,942,295).

Kiang, Akki et al and Japanese Patent No. 03191002 disclose a paperboard laminate comprising a tie layer as discussed above. Kiang, Akki et al and Japanese Patent No. 03191002 fail to disclose a tie layer having a coat weight of between 1 and 25 lbs/3000 ft^2.

Adur et al teach a tie layer having a coat weight of 1 lb/3000 ft^2 (column 2, lines 1 – 12) in a paperboard laminate, for the purpose of obtaining a laminate that can be converted into many different types of packages (column 2, lines 35 – 37). One of ordinary skill in the art would therefore have recognized the advantage of providing for the weight of Adur in Kiang, Akki et al and Japanese Patent No. 03191002, which comprises a paperboard laminate comprising a tie layer, depending on the desired conversion to different types of products of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a tie layer having a coat weight of between 1 and 25 lbs/3000 ft^2 in Kiang, Akki et al and Japanese Patent No. 03191002 in order to obtain a laminate that can be converted into many different types of packages as taught by Adur et al.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant' arguments regarding 35 U.S.C. 103(a) rejection of the Claims 1 – 3, 6, 9 – 14, 16 and 18 – 19 as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Akki et al (U.S. Patent Publication No. 2001/0007005 A1) and Japanese Patent No. 03191002, 35 U.S.C. 103(a) rejection of Claim 4 as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Lorence (U.S. Patent No. 5,818,016), 35 U.S.C. 103(a) rejection of Claims 5 and 15 as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Shanton (U.S. Patent No. 6,066,375), 35 U.S.C. 103(a) rejection of Claims 7 and 17 as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Bissot (U.S. Patent No. 4,818,782) and 35 U.S.C. 103(a) rejection of Claim 8 as being unpatentable over Kiang (U.S. Patent No. 5,370,941) in view of Adur (U.S. Patent No. 5,942,295), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 7 of the remarks dated November 3, 2006, that Kiang discloses the use of ethylene vinyl alcohol as a barrier material, but does not disclose that how it is used as a barrier.

However, as the barrier disclosed by Kiang et al is a layer of the food container disclosed by Kiang, it is clear that the barrier is intended to be a barrier against materials used in food preparation, including grease.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Patterson 1/22/07

Marc A. Patterson, PhD.
Primary Examiner
Art Unit 1772